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Systematics and Faunistics of Neotropical Grapholitini, 1: Dichrorampha Guenée, 1845 (Lepidoptera: Tortricidae)

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J. Razowski & V. O. Becker

Abstract

Eigtheen species of Neotropical *Dichrorampha* (*D. obliqua* Razowski & Becker, sp. n., *D. brusquaea* Razowski & Becker, sp. n., *D. mnesisocia* Razowski & Becker, sp. n., *D. atomosa* Razowski & Becker, sp. n., *D. limae* Razowski & Becker, sp. n., *D. horata* Razowski & Becker, sp. n., *D. horata* Razowski & Becker, sp. n., *D. phoreosocia* Razowski & Becker, sp. n., *D. ischyros* Razowski & Becker, sp. n., *D. albicans* Razowski & Becker, sp. n., *D. brevis* Razowski & Becker, sp. n., *D. ochripalpana* Razowski & Becker, sp. n., *D. laevigata* Razowski & Becker, sp. n., *D. loncheres* Razowski & Becker, sp. n., *D. ipameriae* Razowski & Becker, sp. n., *D. deindentata* Razowski & Beckek, sp. n., *D. opipara* Razowski & Becker, sp. n.) and the unknown female of one species (*Dichrorampha chloantha* Razowski) are described. History of studies and systematics of *Dichrorampha* are discussed. KEY WORDS: Lepidoptera, Tortricidae, Grapholitini, Dichrorampha, new species, Neotropic.

Sistemática y Faunística de los Grapholitini neotropicales, 1: Dichrorampha Guenée, 1845 (Lepidoptera: Tortricidae)

Resumen

Se describen dieciocho especies de *Dichrorampha* neotropicales (*D. obliqua* Razowski & Becker, sp. n., *D. brusquaea* Razowski & Becker, sp. n., *D. mnesisocia* Razowski & Becker, sp. n., *D. atomosa* Razowski & Becker, sp. n., *D. limae* Razowski & Becker, sp. n., *D. horata* Razowski & Becker, sp. n., *D. rhaphidagus* Razowski & Becker, sp. n., *D. telaria* Razowski & Becker, sp. n., *D. ischyros* Razowski & Becker, sp. n., *D. albicans* Razowski & Becker, sp. n., *D. ochripalpana* Razowski & Becker, sp. n., *D. laevigata* Razowski & Becker, sp. n., *D. loncheres* Razowski & Becker, sp. n., *D. ipameriae* Razowski & Becker, sp. n., *D. deindentata* Razowski & Beckek, sp. n., *D. opipara* Razowski & Becker, sp. n.) y la desconocida hembra de una especie (*Dichrorampha chloantha* Razowski). Se comenta la historia de los estudios y sistemática de *Dichrorampha*. PALABRAS CLAVE: Lepidoptera, Tortricidae, Grapholitini, Dichrorampha, nuevas especies, Neotropical.

Introduction

Dichrorampha Guenée, 1845 is the most abundant in species of the Grapholitini genera. Its species were often described and placed in two genera, Dichrorampha and Lipoptycha Lederer, 1859 which differed in the presence of the costal fold of male forewing in the latter.

OBRAZTSOV (1953, 1958) divided *Dichrorampha* into five subgenera, viz., *Dichrorampha*, *Lipoptycha* Lederer, 1859, *Lipoptchodes* Obraztsov, 1953, *Dichroramphodes* Obraztsov, 1953, and then added (OBRAZTSOV 1958) *Paralipoptycha* Obraztsov, 1958.

Latern, DANILEVSKY & KUZNETZOV (1968) retained *Dichrorampha* and *Hemimene* and RAZOWSKI (1989 and further papers). Neotropical genus *Balbis* Walsingham, 1897 included in the

synonymies of *Dichrorampha* (recently by BROWN, 2005) proved it to be a distinct genus similarly patterned to *Dichrorampha* (RAZOWSKI 2011).

RAZOWSKI (1989, 2003) included this genus in the subtribe Lipoptychinia but KOMAI & HORAK 2006) did not subdivide the tribe of Grapholitini.

The redescriptions of *Dichrorampha* are by OBRAZTSOV (1953, 1958), DANILEVSKY & KUZNETZOV (1968), RAZOWSKI (1989, 2003).

Early stages of the Palaearctic species are described by SWATSCHEK (1958) the larva and PATOCKA (1998), the pupa.

Dichrorampha is distributed in the Palaearctic, Nearctic, and Neotropical regions. The majority of species were foud in the Palaearctic region; DANILEVSKY & KUZNETZOV (1968) discussed 63 Palaearctic species, RAZOWSKI (2003) listed 53 species from Europe, POWELL (1983) catalogued 14 Nearctic species, and POWELL *et al.* (1995) 12 Neotropical species.

Recently the following Neotropical species were described: *Dichrorampha ochromosaica* Razowski & Wojtusiak, 2010, *D. atalla* Razowski, 1911, *D. huichihuayana* Razowski, 2011, *D. yellahs* Razowski, 2012, *D. rhadina* Razowski 2011, *D. flinti* Razowski 2011, *D. talancingana* Razowski, 2011, *D. chloantha* Razowski, 2011, *D. tandayapae* Razowski, 2011, and *D. geitantrum* Razowski, 2011. Now as much as 40 species are known from this region.

Material

All specimens were collected by the junior author; the holotypes of the newly described species are preserved in the Becker Collection, Camacan and finally shall be deposited in one of the Brazilian Museums. Some spare specimens are kindly donated to the Institute of Systematics and Evolution of Animals, PAS, Cracow.

Note. The numbers cited in the labels of the type material are the entry numbers of the specimens in the register book of the above mentioned collection. Abbreviation: GS - genitalia slide.

Systematic part

Dichrorampha obliqua Razowski & Becker, sp. n. (Fig. 27)

Holotype male: "Brasil: M[inas]G[erais], Caraca 1300 m, 25-X-1994, V. O. Becker Col; Col. Becker 93583"; GS 659.

Description: Wing span 10 mm. Head and thorax brownish cream, the latter striped brown; labial palpus cream with large brown termination. Forewing slender, expanding terminally; costa slightly convex; termen moderately oblique, distinctly incised beneath apex. Ground colour cream strigulated brown except for posterior third of costal area which is brownish grey and similar terminal area marked with black dots; costal strigulae small, whitish cream; divisions brownish. Markings brown, preserved as strongly angulate postbasal fascia and costal remnants of median fascia. Cilia cream grey. Hindwing brownish whiter basally; cilia concolorous with base.

Male genitalia (Fig. 1): Terminal projection of tegumen short; basal half of valva broad; sacculus angulate-rounded; neck of valva short; cucullus broad, oval, with large ventral lobe; aedeagus slender; cornuti numerous.

Female not known.

Diagnosis: This species is comparable to *D. brusquea* but differs from it in paler colouration, slender forewing, and short neck of valva.

Etymology: The specific name refers to the forewing termen; Latin: obliquo-oblique.

Dichrorampha brusquea Razowski & Becker, sp. n. (Fig. 28)

Holotype male: "Brasil: Brusque, Santa Catarina 6-IX-1970, V. O. Becker Col; Col. Becker

12264"; GS 606; paratypes a pair from same locality dated 6-IX-1970 (male, GS 605) and 28-XII-1969 (female, GS 607).

Description: Wing span 9 mm. Head brownish cream, thorax browner brown proximally; labial palpus dirty cream, brown terminally. Forewing distincly expanding terminad; costa weakly convex; termen somewhat oblique, incised beneath apex. Ground colour cream suffused and strigulated brown; dorsal path broad divided by four incomplete lines, followed by torno-terminal brown suffusion; costal strigulae numerous, white; divisions brown; terminal dots brown. Markings brown comprising dorso-postbasal blotch and remnants of costal markings. Cilia cream. Hindwing brown, cilia brownish cream.

Male genitalia (Fig. 2): Apical process of tegumen small; socii absent; sacculus angulate; neck of valva short, tapering posteriorly; ventral incision deep, slender posteriorly, with oblique proximal edge; cucullus oval, with large ventral lobe directed proximally; aedeagus slender; cornuti numerous.

Female genitalia (Fig. 17): Sterigma strong with rounded anteostial p-art and broad, convex posteriorly postostial part and short lateral parts; sclerites of ductus bursae slender, long; signum blade long.

Diagnosis: This species is externally similar and very closely related to *D. mnesisocia* but *D. brusquea* without socii, with short neck of valva, and broad postostial sterigma. The male genitalia also similar to *D. circumfluxana* but the latter with short aedeagus.

Etymology: The name refers to the type locality.

Dichrorampha mnesisocia Razowski & Becker, sp. n. (Fig. 29)

Holotype male: "Brasil: S[ao]P[aulo], Bertioga 5 m, 7-9-X-1996, V. O. Becker Col; Col. Becker 99883"; GS 534. Paratype female, same label, Coll. Nr. 99881; GS 520.

Description: Wing span 10 mm. Head cream brown; thorax browner, darker. Forewing not expanding terminad; costa almost straight; termen slightly oblique, concave beneath apex. Ground colour whitish except for costal area greenish olive, subterminal area greyer densely strigulated black except for costa and distal third of wing; tornal area whitish; Costal strigulate indistinct, whitish, except for terminal pair which is large, white; divisions black-brown; four fine terminal dots present. Markings in shape of dorso-basal blackish blotch. Cilia whitish, grey terminally. Hindwing dark brown, whitish in basal third; cilia grey.

Variation. Female wing span 12 mm; wing darker than in male, almost entirely strigulated black; suberminal area suffused black; dorso-basal blotch well developed; refractive markings present. Hindwing with small whitish basal area; cilia whitish.

Male genitalia (Figs. 3): Uncus present, small, weakly sclerotized; socius small, drooping; neck of valva tapering terminad, with straight, oblique ventral edge; sacculus angulate; cucullus short, with large ventral lobe; aedeagus rather small, slender, broad in basal third.

Female genitalia (Fig. 18). Sterigma rounded proximally, convex in middle posteriorly, with broad lateral parts; antrum sclerite short, slender; sclerite of median part of ductus bursae long; basal sclerite small; signum slender.

Diagnosis: This species is closely related to *D. sarmentana* (Zeller, 1877) and *D. circumfusana* (Zeller, 1877) from Colombia but differs from them and almost all congeners by presence of the socii.

Etymology: The specific name refers to presence of socii (a plesiomorphic character); Greek: $\mu\nu\epsilon\sigma\iota\zeta$ (mnesis) - remembering.

Dichrorampha atomosa Razowski & Becker, sp. n. (Fig. 30)

Holotype male: "Ecuador: Loja, Loja 2750 m, 21-XII-1992, V. O. Becker Col; Col. Becker 103173"; GS 572.

Description: Wing span 11 mm. Head and thorax brownish cream, labial palpus cream with grey terminal part. Forewing slightly expanding terminad; costa almost straight; apex rounded; termen weakly oblique, indistinctly concave beneath apex. Ground colour greyish yellow densely strigulated

blackish; a few black dots in costal half of wing postmedially and row of fine terminal dots at midtermen; costal strigulae indistinct; divisions weak; Cilia concolorous with wing. Hindwing brownish, whitish towards base; cilia whitish scaled brownish.

Male genitalia (Fig. 4): Apical projection of tegumen triangular; basal part of valva broad; sacculus rounded posteriorly; neck of valva short, moderately broad; ventral incision deep, slender; cucullus with broad dorsal lobe and elongate, directed proximally ventral lobe; aedeagus moderately broad, rather short.

Female not known.

Diagnosis: This species is closest to *D. ochromosaica* Razowski & Wojtusiak, 2010 from Peru (Department of Pasco) but this species is almost patternless, has longer aedeagus and short, subtriangular apical prominence of tegumen.

Etymology: The specific epithet refers to maculation of forewing; Greek: $\dot{\alpha}\tau o\mu o\zeta$ (atomos) - a very small spot, a dot.

Dichrorampha limae Razowski & Becker, sp. n. (Fig. 31)

Holotype male: "Brasil: M[inas]G[erais], Nova Lima 850 m, 20-X-1994, V. O. Becker Col; Col. Becker 93108"; GS 656.

Description: Wing span 10 mm. Head and thorax pale brownish; frons and labial palpus creamish, the latter brown terminally; tegula brown along middle. Forewing expanding terminally; costa straight; termen fairly oblique, straight. Ground colour whitish tinged brownish, with slight violet hue; dorsal blotch paler, divided medially; strigulation brown, in basal third of wing; yellowish diffuse blotch at end of median cell marked by a few brown radial strigulae; costal strigulae dense, whitish; divisions brown; four large terminal dots. Markings brown developed as angulate transverse lines, slender postbasal fascia, remnants of median fascia at costa (slender) and tornus. Cilia brownish white, brown scaled. Hindwing pale brown; cilia paler.

Male not known.

Female genitalia (Fig. 9). Sterigma slender proximally, distinctly convex medio-posteriorly, with strong lateral parts fused with subgenital sternite; sclerite of antrum and posterior half of ductus bursae slender, weak, basal sclerite indistinct; signum slender.

Diagnosis: In facies, *D. limae* is similar to *D. phoreosocia* but differs from it by distinctly expanding forewing, obliquely straight termen, and large terminal dots.

Etymology: The name refers to the type locality.

Dichrorampha horata Razowski & Becker, sp. n.(Fig. 32)

Holotype male: "Brasil: D[istrito]F[ederal], Planaltina 1000 m, 5-XII-1984, 15.35' S 47.42' W, V. O. Becker Col; Col. Becker 57138"; GS 644.

Description: Wing span 8 mm. Head and thorax brown; labial palpus cream, brown terminally; tegula cream orange, brownish along middle. Forewing broad, expanding terminally; costa straight to end of fold; termen distinctly incised beneath apex. Ground colour orange especially terminally, suffused brownish in apical third; strigulation dense, brown; costal strigulae white, two posterior ones distinct; divisions brown; terminal dots black. Markings brown consisting of basal markings, postbasal fascia, tornal blotch and remnants of costal part of median fascia. Cilia brown, creamier towards tornus. Hindwing brown; cilia paler.

Variation. Wing span of female 9 mm; markings more distinct, broader than in male, dark brown.

Male genitalia (Fig. 5): Apical projection of tegumen short; sacculus convexly rounded before neck of valva; the latter with oblique proximal edge; cucullus with rather short, broad ventral lobe; aedeagus slender.

Female genitalia (Fig. 20): Sterigma short, weakly convex posteriorly; sclerite of antrum weak, median sclerite of ductus bursae short, basal sclerite atrophied; blade of signum slender.

Diagnosis: *D. horata* is externally somewhat similar to *D. ischyros* and *D. brusquea* but has orange ground colour of forewing, especially the terminal area; from *D. brusquea* this species differs chiefly in the rather symmetric cucullus and its short ventral lobe. Facies of *horata* is also similar to Nearctcic *D. leopardana* (Busck, 1906) but the aedeagus of the latter is short.

Etymology: The specific name refers to distinct colouration; Greek: $\eta o \rho \alpha \tau o \zeta$ (horatos) - visible.

Dichrorampha rhaphidagus Razowski & Becker, sp. n. (Fig. 33)

Holotype male: "Brasil: D[istrito]F[ederal], Planaltina 1000 m, 10-X-1983, 15.35' S 47.42W V. O. Becker Col; Col. Becker 41558"; GS 847. Paratypes 5 males, same labels, two with GS 873 and 874.

Description: Wing span 12.5 mm. Head and thorax grey-brown, labial palpus much darker. Forewing slender, not expanding terminally; costa slightly convex; termen somewhat oblique, depressed beneath apex. Ground colour greyish tinged and sprinkled brown; some diffuse spots brownish; costal strigulae whitish, small, two terminal ones large, white; divisions brownish; speculum grey with some blackish spots and weak posterior line. Cilia paler than ground colour. Hindwing pale brownish, creamer basally; cilia similar.

Variation: Forewing more or less dark in one male, brown-grey with dark brown suffusions and markings and rather distinct refractive lines. Hindwing brown. One example much paler than the holotype.

Male genitalia (Fig. 6): Apical part of tegumen weakly projected; basal third of valva broad; neck slender, rather short; sacculus angulate; ventral incision of valva broad, rounded; cucullus transversely oval; aedeagus fairly long, slender, not tapering terminad.

Female not known.

Diagnosis: *D. rhaphidagus* is externally similar to *D. ochripalpana* but *rhaphidagus* with distinct, grey speculum and slender, rather long aedeagus. It is somewhat similar to representatives of the genus *Eucosma* Hübner, 1823.

Etymology: The specific name refers to the shape of aedeagus; Greek: $\rho\eta\alpha\pi\eta\imath\delta\sigma\varsigma$ (rhaphidos) - a needle.

Remarks: One male from Paraná (Curitiba 920 m, 20-XII-1974, V. O. Becker Col; Col. Becker 5223; GS 539) is externally similar to the type series but differs in the male genitalia chiefly by large ventral lobe of cucullus and its proximal edge perpendicular to the neck of valva). It is not included in the type series.

Dichrorampha telaria Razowski & Becker, sp. n. (Fig. 34)

Holotype male: "Brasil: M[inas]G[erais], Nova Lima 850 m, 20-X-1994; V. O. Becker Col; Col. Becker 93106"; GS 566.

Description: Wing span 10.5 mm. Head grey, labial palpus cream blackish basally and terminally; thorax olive brown, tegula with a few greyish spots. Forewing slightly expanding terminally; costa almost straight; apex broad, rounded; termen weakly convex, incised beneath apex. Ground colour yellowish densely strigulated black, brown-grey with some ochreous suffusions in terminal fourth; interfasciae with greyish refractions; several black vertical dashes at the end of median cell; costal strigulae whitish; division yellowish brown; four black dots along mid-termen. Cilia whitish brown. Hindwing brownish, paler basally; cilia whitish, brown scaled.

Male genitalia (Fig. 7): Uncus-like terminal process of tegumen elongate; socius present; basal part of valva subsquare; neck slender; sacculus straight ventrally, angulate; ventral incision of valva large; cucullus trapeze, distinctly convex caudally with large ventral lobe; aedeagus rather short, weakly bent.

Female not known.

Diagnosis: *D. telaria* is rather close to *D. mnesisocia* but is distinct externally (chiefly by dense strigulation of forewing base), shape of the cucullus and neck of the valva.

Etymology: The specific name refers to the colouration of the forewing; Latin: tela-texture.

Dichrorampha phoreosocia Razowski & Becker, sp. n. (Fig. 35)

Holotype male: "Brasil: R[io de]J[aneiro] Petropolis 65 m, 10-20-X-1985, V.O. Becker Col; Col. Becker 65044"; GS 571.

Description: Wing span 9 mm. Head and thorax brownish, labial palpus creamish, brownish terminally. Forewing broadest postmedially; termen weakly convex, slightly oblique. Ground colour brownish cream sprinkled and suffused brownish in shape of a diffuse dorsal patch; terminal area brownish; brownish strigulation over almost all the wing. Costal strigulae small, whitish; divisions brown; about four fine black dots along termen. Markings brown in shape of trasverse, angulate lines. Cilia whitish brown, brown scaled. Hindwing brown; cilia paler.

Male genitalia (Fig. 8): Uncus-like termination of tegumen long; socius present, small; sacculus convex; neck of valva broad, tapering terminad; ventral incision deepest at cucullus; the latter with small dorsal lobe and large ventral lobe; caudal edge convex; aedeagus short, tapering terminally.

Female not known.

Diagnosis: *D. phoreosocia* is related to *D. telaria* but is easily distinguished by dense brown strigulation, long terminal process of tegumen, and broader neck of valva.

Etymology: The specific epithet concerns presence of the socii; Greek: $\pi\eta o\rho\varepsilon o$ (phoreo) - I carry.

Dichrorampha ischyros Razowski & Becker, sp. n. (Fig. 36)

Holotype male: "Brasil: D[istrito]F[ederal], Planaltina 1000 m, 5-V-1984, 15.35' S 47.42' W, V. O. Becker Col; Col. Becker 56419"; GS 651.

Description: Wing span 9 mm. Head and thorax dark brown. Forewing weakly expanding terminally; costa slightly convex; termen somewhat oblique. Ground colour cream brown preserved as a weak dorsal patch divided by brown median line and greyer subterminal remnants of interfascia with a few blackish dots; remaining parts browner; costal strigulae fine, white; divisions brown. Markings dark brown developed as basal blotch, remnants of median fascia and subtornal blotch. Cilia brownish. Hindwing oval, brown; cilia brownish white.

Male not known.

Female genitalia (Fig. 21): Posterior part of sterigma strongly sclerotized, convex; lateral parts long rearching proximal edge of subgenital sternite; sclerite of antrum extending to before middle of ductus bursae; basal sclerite broad but weak; signum long.

Diagnosis: *D. ischyros* is comparable to *D. limae* but *ischyros* with distinct dark brown basal blotch, subterminally situated row of blackish dots, and strong sclerite of antrum.

Etymology: The name refers to the sclerite of antrum; Greek: ἰσχηψρος (ischyros) - strong.

Dichrorampha albicans Razowski & Becker, sp. n. (Fig. 37)

Holotype male: "Costa Rica, Turrialba 600 m, X-1971, V. O. Becker Col; Col. Becker 35732"; GS 568.

Description: Wing span ca 11 mm. Head and thorax pale brownish grey, end of labial palpus, vertex, and collar browner. Forewing somewhat expanding terminad; costa slightly convex; termen strongly oblique, concave beneath apex. Ground colour white forming a broad postbasal fascia sparsely marbled brown, marbling towards tornus dense; remaining area yellowish cream, more grey along costa; costal strigulae sparse, white, indistinct except for the terminal ones; divisions brown; dorsal half of termen whitish marked by a row of strong, black dots; fine black marks at end of median cell. Markings: basal blotch brownish grey spotted brown; costal remnants of median fascia yellowish brown marked black. Cilia grey. Hindwing brownish grey, cilia paler.

Male not known.

Female genitalia (Fig. 22): Posterior part of sterigma uniformly broad, arched, lateral parts slender fused to slender edges of subgenital sternite; anteostial sterigma slender; antrum sclerite short, tapering proximally; median sclerite of ductus bursae weak, proximal sclerite absent; signum blade slender.

Diagnosis: Facies of *D. albicans* and *D. stabulata* (Meyrick, 1916), **comb. n.** from Colombia are distinct by oblique termen and large dots situated on dorsal half of termen; female genitalia of *albicans* differ from the latter by long ductus bursae.

Etymology: The specific name refers to colouration of the forewing; Latin: albicans-becoming white.

Dichrorampha brevis Razowski & Becker, sp. n. (Fig. 38)

Holotype male: "Costa Rica: Turrialba 600 m, VII-1981, V. O. Becker Col; Col. Becker 46054"; GS 882. Paratypes 2 males, one with same Colln Nr. 35750; GS 887, another dated X-1971, Colln Nr. 35750.

Description: Wing span 13 mm. Head and thorax greyish brown; labial palpus paler. Forewing distinctly expanding terminally; costa bent at 3/4; termen long, almost straight, weakly oblique. ground colour brownish; costal strigulae indistinct; divisions brown, long; three black dots along mid-termen. Markings reduced to a few brown lines. Cilia brownish. Hindwing brown; cilia cream brown.

Male genitalia (Fig. 9): Apical projection of tegumen broad, short; basal half of valva broad; aedeagus rounded before ventral incision of valva; the latter deep, slender; neck of valva short, very slender; cucullus oval with broad ventral lobe; aeedeagus rather short, tapering terminally.

Female not known.

Diagnosis: In facies *D. brevis* is similar to Holarctic *D. sedatana* (Busck, 1906) but *brevis* with strongly expanding forewing and very short neck of valva, also shorter than in *circumfusana*.

Etymology: The name refers to the aedeagus; Latin: brevis-short.

Dichrorampha ochripalpana Razowski & Becker, sp. n. (Fig. 39)

Holotype male: "Brasil, Paraná, Banhado Quatro Barras 800 m, 7-II-1970, V. O. Becker Col; Col. Becker 34270"; GS 867.

Description: Wing span 16 mm. Head pale brownish grey; thorax darker; labial palpus ochreous cream, dark brown terminally. Forewing indistinctly expanding terminad; costa rather straight; termen moderately oblique. Ground colour brownish densely strigulated brown; costal strigulae whitish, posterior one the largest; divisions brownish; refractive marking present; terminal dots indistinct; ochreous brown area marked with blackish strips at end of median cell. Cilia (remnants) brownish. Hindwing brownish; cilia paler.

Male genitalia (Fig. 10): Terminal projection of tegumen weak; sacculus angulate; neck of valva slender, tapering posteriorly; cucullus oval with broad ventral lobe; aedeagus rather short, uniformly broad.

Female not known.

Diagnosis: *D. ochripalpana* is rather similar to some *Cydia* Hübner but the genitalia resemble *D. brusquea*; they are distinct, however, by broad aedeagus and ventral lobe of cucullus directed more ventrally.

Etymology: The specific name refers to colouration of the labial palpus; Greek: $\acute{o}\chi\eta\rho\sigma\varsigma$ (ochros) - ochreous.

Dichrorampha laevigata Razowski & Becker, sp. n. (Fig. 40)

Holotype male: "Brasil: S[ao]P[aulo], Bertioga 5 m, 9-7-X-1996, V. O. Becker Col; Col. Becker 99881"; GS 514. Paratype female, same data; GS 513.

Description: Wing span 14 mm. Head, thorax and end of labial palpus brownish, frons and

remaining part of palpus cream. Forewing expanding terminally; costa uniformly convex; apex rounded; termen incised beneath the latter, hardly oblique. Wing brownish, traces of postbasal and median fascia brown; costal strigulae dirty cream; divisions brown; terminal dots minute. Cilia paler than wing. Hindwing brownish with similar cilia.

Variation. Female wing span 11 mm, yellowish dense strigulation in basal half present, sparse strigulae medially.

Male genitalia (Fig. 11): Basal part of valva broad; sacculus straight, angulate; neck of valva broad, moderately large; cucullus short with small dorsal lobe and large, directed proximally ventral lobe; aedeagus slender, fairly long, with dorso-terminal thorn.

Female genitalia (Fig. 23): Sterigma producing posteriorly with lateral parts fused to posterior ribs of subgenital sternite; sclerite of antrum very large, tapering proximad; signum delicate.

Diagnosis: Facies of *D. laevigata* somewhat resembling *D. polyseta* but forewing of this species is more uniform; male genitalia similar to *D. brusquea* but neck of valva longer and aedeagus with dorso-terminal thorn; female closer to *albicans* but the latter with short sclerite of antrum.

Etymology: The specific name refers to smooth colouration; Latin: *laevigata-smoothed*.

Dichrorampha loncheres Razowski & Becker, sp. n. (Fig. 41)

Holotype male: "Brasil: Paraná, Quatro Barras 800 m, 22-IV-1971, V. O. Becker Col; Col. Becker, 34381"; GS 631. Paratypes same data except for the following: 27-XI-1970; Coll. Nr. 34357; GS 868 (male) and 28-XII-1970; Coll. Nr. 34366; GS 632 (female).

Description: Wing span 10 mm. Head and thorax brownish, labial palpus cream except for terminal part. Forewing not expanding terminally; costa weakly convex; termen oblique. Ground colour brownish white; suffusions and some spots brownish; costal strigulae indistinct; divisions brownish; dots along termen weakly developed. Markings diffuse, pale brown consisting of postbasal and median fascia. Hindwing brownish; cilia paler. Cilia (damaged) brownish.

Variation. Female ground colour of forewing grey, strigulae and markings brown.

Male genitalia (Fig. 12): Apical projection of tegumen small; valva rectangular to middle with short, deep ventral incision; sacculus angulate; dorsal lobe of cucullus rather small, ventral lobe large; aedeagus long, slender with terminal thorn.

Female genitalia (Fig. 24): Sterigma broad, symmetric; ostium bursae median; sclerite of antrum long, bent; proximal sclerite of ductus bursae weak; signum small.

Diagnosis: Probably closest to *D. obliqua* but easily distinguished by its very long, slender aedeagus; female with weakly sclerotized subgenital plate.

Etymology: The name refers to the shape of the aedeagus; Greek: $\lambda o \nu \chi \eta \epsilon \rho o \zeta$ (loncheros) - armed with a spear.

Dichrorampha ipameriae Razowski & Becker, sp. n. (Fig. 42)

Holotype male: "Brasil: GO[ias], Ipameri, 10-X-1988, V. O. Becker Col; Col. Becker 59712"; GS 463.

Description: Wing span 9 mm. Head cream grey, thorax grey. Forewing slender, expanding terminad; costa weakly convex; termen oblique, slightly convex. Ground colour dirty cream preserved at base of wing and in shape of broad dorsal patch consisting of 4-5 lines extending to median cell and some small marks in posterior areas; costal strigulae weak, divisions grey; terminal dots very small. Remaining surface brownish grey, with paler and darker parts. Cilia cream scaled brown-grey. Hindwing brownish cream, browner on periphery; cilia pale brownish cream.

Male genitalia (Fig. 13): Tegumen rounded apically; socii atrophying marked by a few hairs; Valva broad to beyond middle; caudal corner of sacculus distinctly extending, pointed; ventral incision of valva deep; ventral lobe of cucullus subtriangular; aedeagus long, slender from beyond base.

Female not known.

Diagnosis: *D. ipameriae* is closely related to *D. telaria* but *ipameriae* aedeagus is long, slender and caudal corner of the sacculus subtriangular.

Etymology: The specific name refers to the type locality.

Dichrorampha chloantha Razowski, 2011

Material examined: Five specimens from the Federal District, Brazil (Planaltina, 1000 m, 25-IX-1985).

Description of female genitalia (Fig. 25). Anteostial sterigma weakly sclerotized; postostial sterigma slender, arch-shaped; median part of subgenital sterite submembranous, posterior ribs slender; antrum membranous; subterminal sclerite probably representing a cingulum; balde of signum delicate.

Remarks: *Dichrorampha chloantha* is described from same locality. Our specimens with less convex caudal edge of cucullus and longer process and ventral lobe.

Dichrorampha deindentata Razowski & Becker, sp. n. (Fig. 43)

Holotype female: "Costa Rica: Cerro la Muerte 3100 m, 5-7-VIII-1981, V. O. Becker Col; Col. Becker 45033"; GS 243. Paratype male, same label, Col. Becker 45035; GS 244.

Description: Wing span 15 mm. Head grey; labial palpus long; thorax brownish, greyer proximally. Forewing rather broadest medially; costa weakly convex; termen slightly oblique, hardly concave beneath apex. Ground colour greyish preserved along 2/3 of costa and in part basally, with weak brownish lines; dorsal and posterior areas of wing dark brown except for cream brown dorsal patch; two weak refractive lines from tornus; a few brown incomplete lines in posterior third of wing; terminal dots atrophying; costal strigulae indistinct; divisions brown. Cilia whitish suffused brown. Hindwing white, brown posteriorly; cilia white, brown scaled.

Male genitalia (Figs. 14): Terminal process of tegumen long, slender; socius absent; basal half of valva large; sacculus angulate; neck of valva uniformly broad; ventral incision deep; dorsal lobe of cucullus short, broad; ventral lobe elongate; aedeagus slender with series of dorsal thorns and long thorny dorso-terminal ventral process.

Female genitalia (Fig. 26): Distal part of sterigma short, weakly expanding latero- and medioposteriorly; proximal part of sterigma rounded; sclerite of antrum large, almost reaching middle of ductus bursae; signum absent.

Diagnosis: The genitalia of this species are comparable to *D. phoreosocia* but *deindetata* without socii and with dentate aedeagus; female resembles *D. ischyros* but this species without any signum; *deindentata* is also distinct by white basal half of the hindwing.

Etymology: The specific epithet refers to dentation of the aedeagus; Greek: $\delta \varepsilon \iota vo \zeta$ (deinos) - terrible; Latin: dentatus - dentate.

Dichrorampha opipara Razowski & Becker, sp. n. (Fig. 44)

Holotype male: "Ecuador: Morona Indanza, 2800 m, 24-XII-1992, V. O. Becker Col; Col. Becker 103487"; GS 214.

Description: Wing span 15 mm. Head and thorax cream, tegula darker. Forewing slender, expanding posteriorly; costa straight; termen fairly oblique, straight. Costal area cream, edge more orange; remaining surface greyish brown, paler in median cell, with a few transverse, indistinct ferruginous lines; costral strigulae indistinct; divisions fine, brownish; no terminal row of dots. Markings indistinct rust brown in form of dorso-basal blotch incised in middle posteriorly; termen brown. Cilia cream, with some brown terminal scales. Hindwing cream edged brownish.

Male genitalia (Figs. 15, 16): Top of tegumen with distinct process; neck of valva short; sacculus angulate; ventral incision subtriangular, broad; dorsal lobe of cucullus small; ventral lobe large, elongate-triangular, densely spined; aedeagus slender, rather short, curved; 7 slender cornuti in vesica.

Female not known.

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Diagnosis: *D. opipara* is distinct by its forewing pattern; male genitalia most similar to *D. huichihuayana* Razowski, 2011 from Mexico but with long uncus like process of the top of tegumen and large ventral lobe of cucullus with long proximal area of spines extending to before mid-costa.

Etymology: The specific name refers to the colouration of the moth; Latin: opipara-beautiful.

BIBLIOGRAPHY

- BROWN, J. W., 2005. Tortricidae (Lepidoptera). *World Catalogue of Insects*, **5**: 741 pp. Apollo Books, Stenstrup. DANILEVSKY, A. S. & KUZNETZOV, V. I., 1968. Listovertki-Tortricidae triba plodoshorki Laspeyresiini. *In* V. I. BYKOVSKIY [ed.]. *Fauna SSSR*, *Nasekomye, Tcheshuekrylye*. *Nauka*, **51**(1): 635 pp [in Russian].
- KOMAI, F. & HORAK, M., 2006. Grapholitini Guenée: 396–467. In M. HORAK. Olethreutinae moths of Australia (Lepidoptera: Tortricidae). *Monographs on Australian Lepidoptera*, **10**: 522 pp.
- OBRAZSOV, N. S., 1953.– Systematische Aufstellung u. Bemerkungen über die palaearktischen Arten der Gattung *Dichrorampha* Gn. (Lepidoptera, Tortricidae).– *Mitteilungen der Münchener Entomologische Gesellschaft*, **43**: 1-101.
- OBRAZSOV, N. S., 1958.— Die Gattungen der Palaearktischen Tortricidae. II, Die Unterfamilie Olethreutinae.— *Tijdschrift voor Entomologie*, **1000**(3-4): 229-261.
- PATOCKA, J., 1998.– Die Puppen der mitteleuropäischen Wickler; Lepidoptera: Tortricoidea.– *Nova Supplementa Entomologica*, **12**: 286 pp. Willey-VCH, Berlin.
- POWELL, J. A., 1983.– Tortricidae.– In R. W. HODGES [ed.]. Checklist of the Lepidoptera of America north of Mexico: 31-41 pp. Classey & Wedge Reasearch Foundation, London.
- POWELL, J. A., RAZOWSKI, J., BROWN, J. W. & BROWN, R. L., 1995.—Tortricidae.—In J. B. HEPPNER [ed.]. Atlas of Neotropical Lepidoptera, Checklist: Part 2 Hyblaoidea-Pyraloidea- Tortricoidea: 183-157. Associacion of Tropical Lepidoptera, Gainesville.
- RAZOWSKI, J., 1989.— The genera of Tortricidae (Lepidoptera). Part II: Palaearctic Olethreutinae.— *Acta Zoologica Cracoviensia*, **30**(7): 107-328.
- RAZOWSKI, J., 2003.– *Tortricidae (Lepidoptera) of Europe, Olethreutinae*, **2**: 301 pp., 95 + XVII pls. František Slamka, Bratislava,
- RAZOWSKI, J., 2011.— New species, new genera, and new combinations of Grapholitini (Lepidoptera: Tortricidae) from the Neotropical Region.— *Acta Zoologica Cracoviensia*, **53A**(1-2): 37-101.
- SWATSCHEK B., 1958.– Die Larvalsystematik der Wickler (Tortricidae und Carposinidae).– Abhanlungen zur Larvalsystematik der Insekten, 3: 1-269.

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